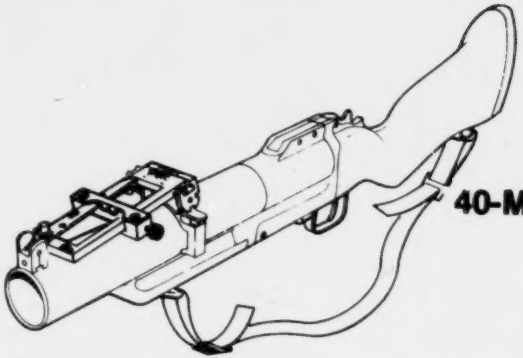
9-1010-205-10

TM 9-1010-205-10

OPERATOR'S MANUAL



40-MM GRENADE LAUNCHER M79

(1010-00-691-1382)

This copy is a reprint which includes current pages from Changes 1 and 2

HEADQUARTERS, DEPARTMENT OF THE ARMY

FEBRUARY 1985

D101.11:

READEX FICHE best cop

CHANGE

No. 3

TM 9-1010-205-10
C3

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 9 December 1987

Changes in Force: C1 and C2

Operator's Manual
GRENADE LAUNCHER 40-MM, M79
(1010-00-691-1382)

TM 9-1010-205-10, 5 February 1985, is changed as follows:

Page a, paragraph 5. Change the "130 meter (427 ft) radius" to "165 meter (541 ft) radius."

Page i. Delete: "*This manual supersedes TM 9-1010-205-10, dated 14 January 1972, including all changes." Substitute: *This manual supersedes TM 9-1010-205-10, dated 14 January 1972 and TM 9-1010-205-10 HR, dated 5 March 1979, including all changes.

Page 2-15. Delete "USING M576 MULTIPURPOSE ROUND:"

Page 2-15, step 1. Change to read: "For short range targets (31 meters or less), place leaf sight down. Estimate distance and aim at the foot of the target (M576 round)."

Page 2-19.

Add as new Step 1: "Adjust rear sight aperture on 200 meters."

Renumber: Steps 1 thru 3 to read: "Steps 2 thru 4."

Add as new Step 5: "Loosen elevation scale locking screw and slide the elevation scale until the 200 meter index mark is alined with rear sight aperture."

Page 3-1.

Add a new paragraph c. to Section I. LUBRICATION INSTRUCTIONS to read: "Wherever the term CLP or the words lube or lubricant are cited in this TM, it is to be interpreted to mean that CLP, LSA, or LAW can be utilized as applicable. The following constraints must be adhered to (1) Under all but the coldest arctic conditions, LSA or CLP are the lubricants to use on your weapon. Either may be used at -10°F or above. However, do not use both on the same weapon at the same time. (2) LAW is the lubricant to use during cold arctic conditions, + 10°F and below. (3) Any of the lubricants may be used from -10°F to + 10°F. (4) Do not mix lubricants on the same weapon. The weapon must be thoroughly cleaned during change from one lubricant to another. Dry cleaning solvent (SD) is recommended for cleaning during change from one lubricant to another."

Add a new paragraph d. to read: "*Rifle Bore Cleaner.* RBC (item 1.1, app D) may be used to remove carbon buildup in the bore and other parts of the weapon."

Page 4-2. Change "Multiple purpose" or "Multipurpose" to "Multiple projectile" wherever it occurs on this page.

Page B-0. Delete: "Not applicable." Add the following item to Appendix B as the sling is both a repair part and a component of the end item.

(1) Illus Number	(2) National Stock Number	(3) Description FSCM and Part Number	Usable On Code	(4) U/M	(5) Qty rqr
1	1005-01-216-4510	SLING, SMALL ARMS (19200) 12624561		EA	1

Page D-3. Add the following:

ITEM NO.	LEVEL	NATIONAL STOCK NUMBER	DESCRIPTION	U/M
Item 0.1 - BOTTLE, ASSEMBLY CYLINDRICAL				
	C	1005-00-242-5687	BOTTLE, ASSEMBLY CYLINDRICAL (19204) 8448444	EA
Item 1.1 - CLEANING COMPOUND, RIFLE BORE				
			CLEANING COMPOUND, RIFLE BORE: small arms bore cleaning solution (RBC)	
	C	6850-00-224-6656	2-oz (59.15-ml) bottle	OZ
	O	6850-00-224-6657	8-oz (236.59-ml) can	OZ
	O	6850-00-224-6663	1-gal. (3.79-l) can (81349) MIL-C-372	GL

Page D-3. Change item 2 to read:

ITEM NO.	LEVEL	NATIONAL STOCK NUMBER	DESCRIPTION	U/M
Item 2 - DRY CLEANING SOLVENT (SD)				
	O	6850-00-281-1985	DRY CLEANING SOLVENT (SD) 1-gal. can (58536) A-A-711	GL

Page D-4. Add the following:

Item 4.1 - LUBRICATING OIL, WEAPONS: (LAW)				
	O	9150-00-292-9689	LUBRICATING OIL, WEAPONS: (LAW) 1-qt (0.95-l) can (81349) MIL-L-14107	QT

Item 4.2 - LUBRICATING OIL, WEAPONS: (LSA), semifluid

		LUBRICATING OIL, WEAPONS: (LSA), semifluid	
C	9150-00-935-6597	2-oz (59.15-ml) plastic bottle	OZ
C	9150-00-889-3522	4-oz (118.30-ml) bottle	OZ
O	9150-00-687-4241	1-qt (0.95-l) can	QT
O	9150-00-753-4686	1-gl (3.79-l) can	GL
		(81349) MIL-L-46000	

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

R. L. DILWORTH
Brigadier General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-40, Operator Maintenance requirements for Launcher, Grenade, 40MM, M79.

☆U.S. GOVERNMENT PRINTING OFFICE: 1988 542-043/80011

PIN: 026096-003

CHANGE

No. 2

TM 9-1010-205-10
C2

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC,
31 December 1985

Operator's Manual
GRENADE LAUNCHER 40-MM, M79
(1010-00-691-1382)

TM 9-1010-205-10, 5 February 1985, is changed as follows:

URGENT

Change the warnings on pages a., 1-4, 2-18, 2-22, 2-26, 2-27, and 4-3 as follows:

Page a. In lines 7 and 8 change "130 meters" to "165 meters" and "427 ft." to "541 ft."

Page 1-4. In lines 1, 2, and 3 change "130 meters" to "165 meters" and "427 ft." to "541 ft."

Pages 2-18, 2-22 and 4-3. In line 2 change "130 meters" to "165 meters" and "427 ft." to "541 ft."

Pages 2-26 and 2-27. In lines 1 and 2 change "130 meters" to "165 meters" and "427 ft" to "541 ft."

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

MILDRED E. HEDBERG
Brigadier General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-40, Operator's Maintenance requirements for Launcher, Grenade, 40-MM, M79.

CHANGE

No. 1

TM 9-1010-205-10
C1
HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 22 April 1985

Operator's Manual
GRENADE LAUNCHER 40-MM, M79
(1010-00-691-1382)

TM 9-1010-205-10, 5 February 1985, is changed as follows:

Page 4-1 change the note to read:

NOTE

"The M781 practice round has an inert projectile, however it does contain a propelling charge.

No DUMMY ammunition is supplied for this weapon."

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

DONALD J. DELANDRO
Brigadier General, United States Army
The Adjutant General

Distribution: To be distributed in accordance with DA Form 12-40, Operator Maintenance requirements for Grenade Launcher, M79.

WARNING

Do not point muzzle at personnel when loading, clearing, zeroing, or firing grenade launcher as this will result in injury to, or death of, personnel.

Do not carry weapon in open position. Weapon must be carried in a closed and locked position with safety on.

Be sure safety is in S (safe) position after loading grenade launcher.

Do not squeeze trigger and remove safety at the same time.

When firing HE grenades at targets within 130 meter (427 ft) range, operator must be in a protected position. Do not engage targets within 130 meter (427 ft) radius of unprotected friendly troops. The danger radius of the practice grenade is 20 meters (66 ft).

Do not fire canopy smoke cartridges so that a falling ignited projectile could descend upon friendly troops and cause injury to personnel and/or damage to materiel.

WARNING (CONT)

Dry cleaning solvent is flammable and should not be used near an open flame.

Do not use dry cleaning solvent without gloves, as continuous use will cause cracks in skin, mild irritation, or inflammation.

Do not use cartridges other than those authorized for the 40-mm grenade launcher M79. Death or injury will result in use of unauthorized high explosive 40-mm cartridges. Use only authorized rounds.

Projectiles assembled with M552 (T333) fuzes will arm within 3 meters (10 ft) of weapon. Clear line of fire of all obstructions that might endanger personnel when weapon is fired.

For first aid data, see FM 21-11.

TECHNICAL MANUAL
No. 9-1010-205-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC *5 February 1985*

Operator's Manual
40-MM GRENADE LAUNCHER M79
(1010-00-691-1382)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished to you.

*This manual supersedes TM 9-1010-205-10, dated 14 January 1972, including all changes.

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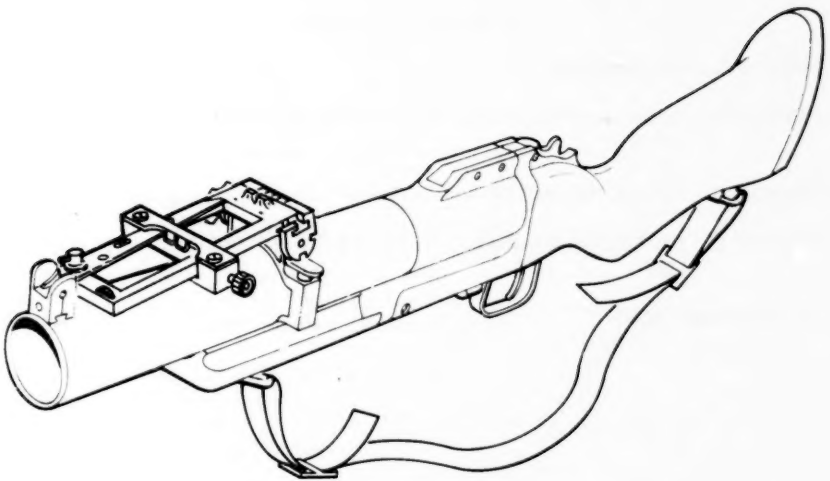
APPENDIX C ADDITIONAL AUTHORIZATION LIST C-1

APPENDIX D EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST D-1

ALPHABETICAL INDEX ..... Index 1



40-MM GRENADE LAUNCHER M79

CHAPTER 1
INTRODUCTION

Section I. GENERAL INFORMATION

SCOPE.

Type of Manual: Operator's

Model Number and Equipment Name. 40-MM Grenade Launcher M79

PURPOSE OF EQUIPMENT. The grenade launcher M79 is a single shot, break open, shoulder-fired weapon. It is breech-loading and fires a 40-mm grenade.

MAINTENANCE FORMS AND RECORDS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

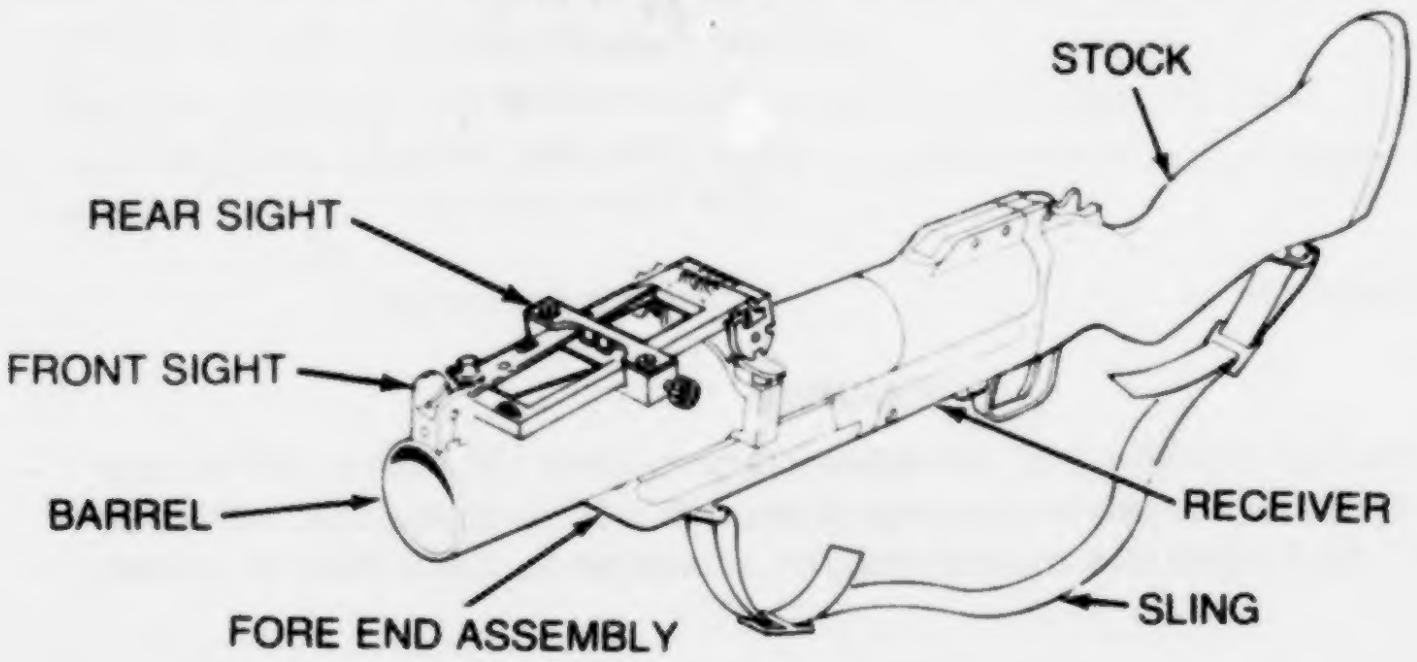
GENERAL INFORMATION (CONT)

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR). If your grenade launcher needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAD, Rock Island, IL 61299-6000. We'll send you a reply.

Section II. EQUIPMENT DESCRIPTION

EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES. The grenade launcher is a single shot, break open, shoulder-fired weapon. It is breech-loading and fires a 40-mm grenade. It has an open, fixed front sight and an open, adjustable rear sight.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS. The launcher is composed of fore end assembly, barrel, receiver, stock, and sling. The fore end assembly locks the barrel to the receiver. The stock is made out of fiberglass or wood and is attached to the receiver by a screw.



EQUIPMENT DESCRIPTION (CONT)

EQUIPMENT DATA.

Length of launcher overall	71.95 cm (28.78 in.)
Length of barrel	35.00 cm (14.00 in.)
Weight of launcher:	
Loaded	2.90 kg (6.39 lb)
Unloaded	2.68 kg (5.91 lb)
Maximum range	400 meters (1312 ft)
Minimum range	31 meters (102 ft)
Muzzle velocity	76 meters per second (249 ft per second)
Rate of fire:	
Maximum effective rate	5-7 rounds per minute

WARNING

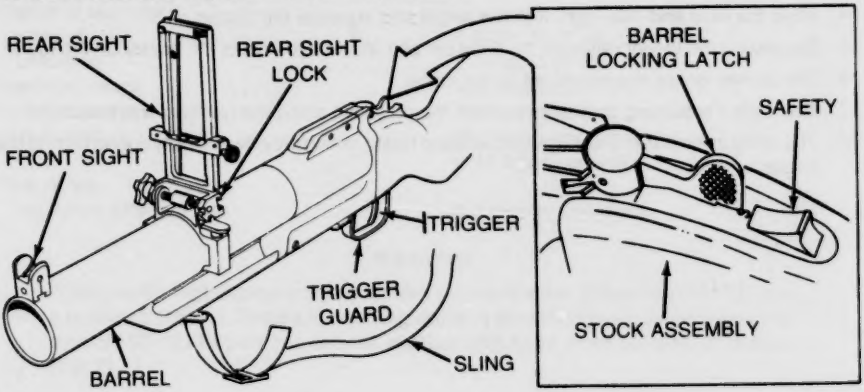
When you fire high explosive (HE) grenades at targets within 130 meters (427 ft), be in a protected position. Targets in a training situation should not be engaged within 130 meters (427 ft). Targets in a combat situation should be no closer than 31 meters (102 ft).

Section III. TECHNICAL PRINCIPLES OF OPERATION

1 Face the target with the muzzle towards the target.
2 Open the launcher, insert a round, and close the launcher.
3 Place the launcher to your shoulder, and move the safety from S (safe) to F (fire).
4 Aline the front and rear sight with the target and squeeze the trigger.
5 Squeezing the trigger releases the firing pin and allows it to impact the primer on the round.
6 The primer ignites the propellant in the round.
7 Gas from the burning propellant pushes the projectile along the barrel of the launcher.
8 The rifling in the barrel causes the projectile to rotate, which provides stability during flight to the target.

CHAPTER 2
OPERATING INSTRUCTIONS

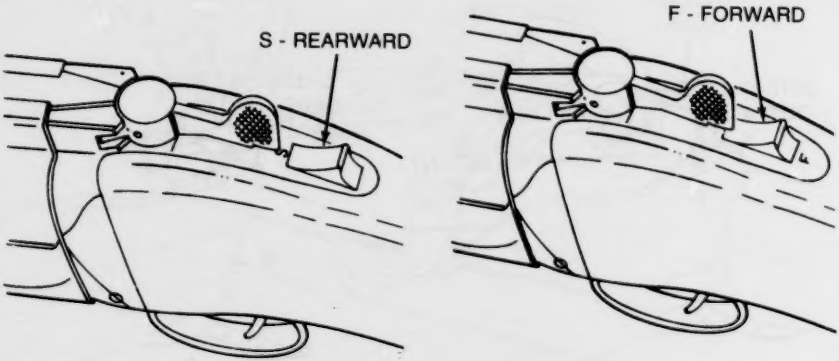
Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS



BARREL LOCKING LATCH. Locks the barrel to the receiver when in closed position. Releases the barrel from the receiver when released for loading the launcher.

SAFETY. Has two positions S (safe) rearward and F (fire) forward.

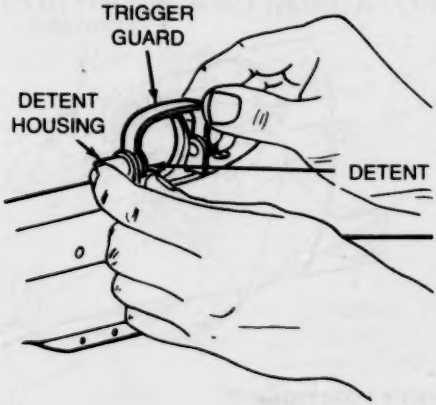
TRIGGER. Squeezing the trigger fires the launcher.

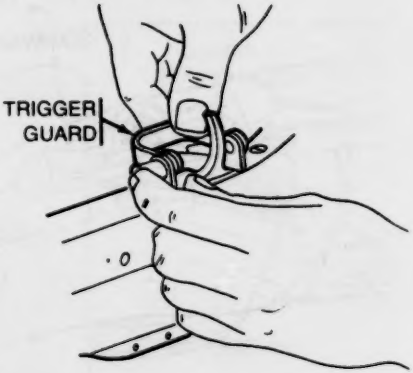


SAFETY POSITIONS

DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS (CONT)

TRIGGER GUARD. Protects from accidental firing. Pivots either right or left for firing with mittens. Depress detent and rotate trigger guard to the position you want.

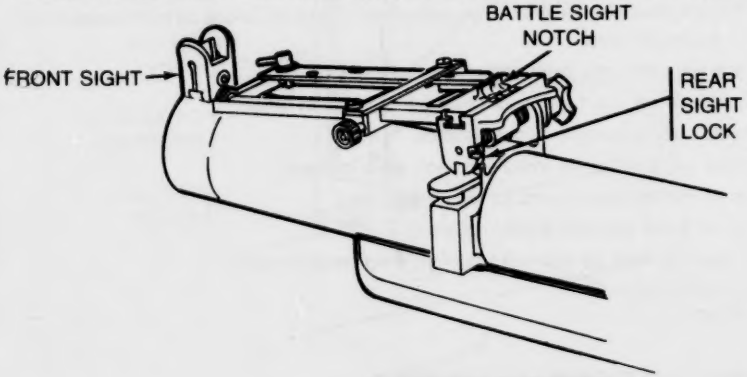




FRONT SIGHT. Is stationary. Use with the rear sight to line up the target.

REAR SIGHT (LEAF SIGHT). Use with the front sight to line up the target. The rear sight lock is used to lock rear sight in two positions: raised or lowered.

LOWERED POSITION. Line up battle sight notch with the front sight for close targets.



LOWERED POSITION

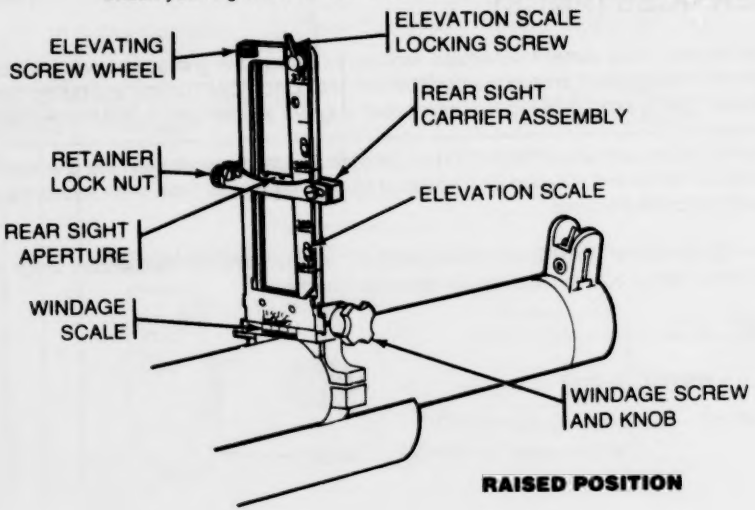
DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS (CONT)

RAISED POSITION. Use the raised position for greater accuracy. It adjusts to the range you want. The elevation adjustment compensates for distance corrections.

- *Rear Sight Carrier Assembly* used for major adjustments in range. Move up to increase range and down to decrease range.
- *Retainer Lock Nut* locks rear sight carrier after adjustment.
- *Elevating Screw Wheel* used for minor (fine) adjustments in range.
- *Elevation Scale* used in judging target distance.
- *Elevation Scale Locking Screw* locks elevation scale in place.
- *Windage Scale* makes adjustments for left or right wind.
- *Windage Screw* locks windage scale in place.
- *Rear Sight Aperture* lines up with front sight for long range targets.

NOTE

Check your sight to see that it works. No damage is allowed.



RAISED POSITION

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

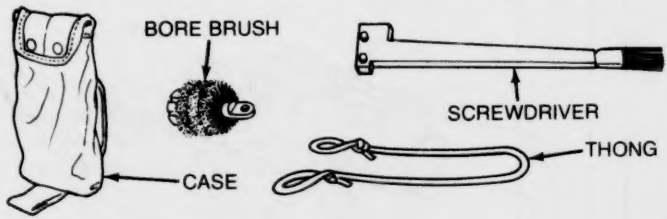
The operator must perform scheduled services to be sure the grenade launcher will operate properly. Always keep in mind the WARNINGS AND CAUTIONS before and during operations. Perform PMCS procedures in the order listed. Be sure you perform your after (A) PMCS.

Perform before operation PMCS if: (1) you are the assigned operator and the grenade launcher has been stored and not used for a period of 90 days, or (2) you have been issued the grenade launcher for the first time.

The "Equipment is NOT READY/AVAILABLE IF" column indicated deficiencies which must be corrected before you can operate the grenade launcher.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

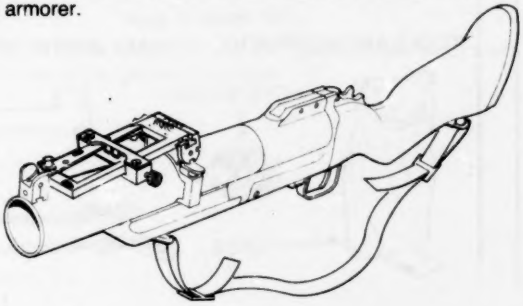
B-Before Operation D-During Operation A-After Operation

Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
				WARNING Clear weapon (p 2-24). No ammo in area.	
1	•			**TOOLS AND EQUIPMENT.** Check for completeness and serviceability. 	

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

B-Before Operation D-During Operation A-After Operation

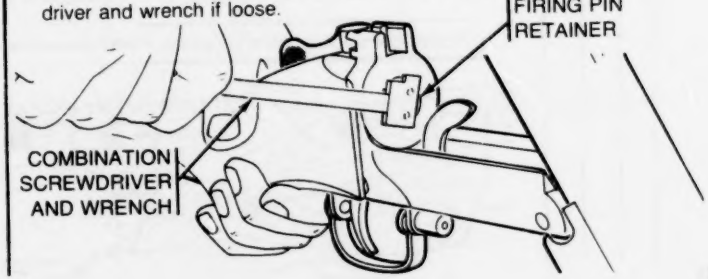
Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
2	•			**GRENADE LAUNCHER.** Visually check entire weapon for damaged or missing components. Report all damaged or missing components to the unit armorer.	



PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

B-Before Operation D-During Operation A-After Operation

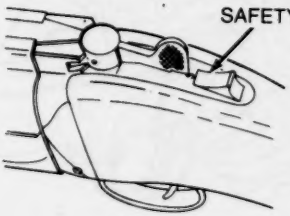
Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
3	•			**CHAMBER AND BORE.** Clean and wipe dry (p 3-9).	
4	•			**FIRING PIN RETAINER.** Tighten until snug with combination screwdriver and wrench if loose.	

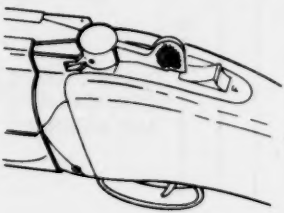


PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

B-Before Operation D-During Operation A-After Operation

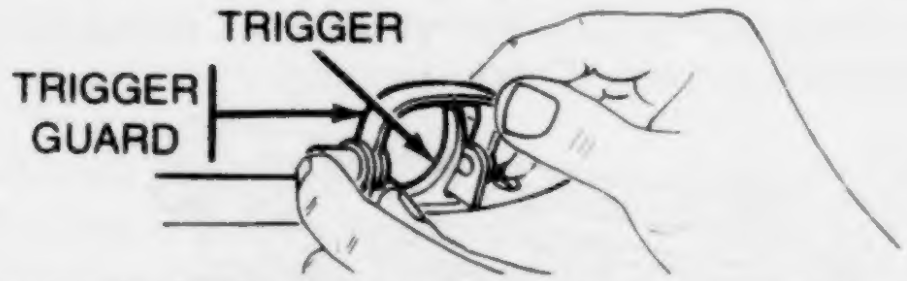
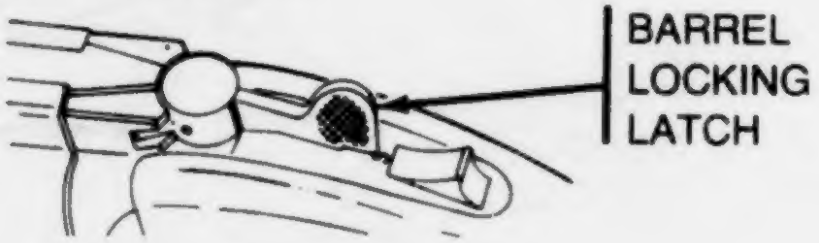
Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
5	•			**SAFETY.** Check operation. Safety must remain in position selected. Weapon must not fire with safety at S.	Safety does not function properly.





PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

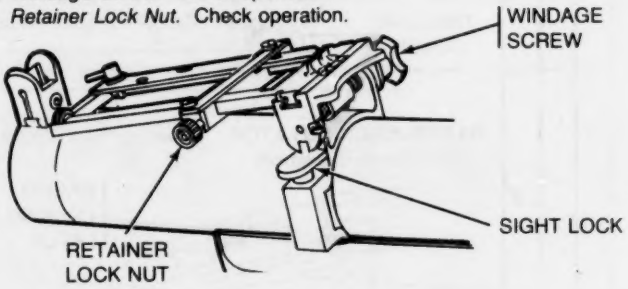
B-Before Operation D-During Operation A-After Operation

Item No.	Interval B	Interval D	Interval A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
6	•			**TRIGGER AND TRIGGER GUARD.** Check operation. Stock must not get in the way of latch movement. 	
7	•			**BARREL LOCKING LATCH.** Check operation. Stock must not get in the way of latch movement. 	

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

B-Before Operation D-During Operation A-After Operation

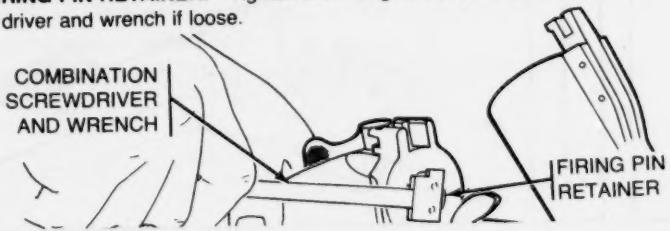
Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
8	•			**REAR SIGHT.** Make sure it looks and works all right. a. *Sight Lock.* Make sure it locks in position. b. *Windage Screw.* Check operation. c. *Retainer Lock Nut.* Check operation.	



PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

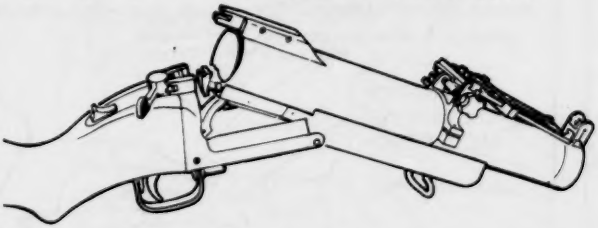
B-Before Operation D-During Operation A-After Operation

Item No.	Interval B	D	A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
				WARNING Clear weapon.	
9		•		**CHAMBER AND BORE.** Check chamber and bore for debris. Clean as needed (p 3-9).	
10		•		**FIRING PIN RETAINER.** Tighten until snug with combination screwdriver and wrench if loose.	



PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (CONT)

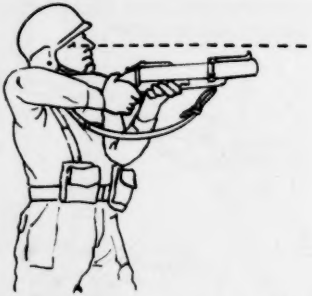
B-Before Operation D-During Operation A-After Operation

Item No.	Interval B	Interval D	Interval A	ITEM TO BE INSPECTED Procedure	Equipment is NOT READY/AVAILABLE IF:
				WARNING Clear weapon.	
11		•		**GRENADE LAUNCHER.** Open launcher. Clean bore with CLP (item 1, app D). Clean all other surfaces with dry cleaning solvent (item 2, app D). Lubricate with light coat of CLP (item 1, app D). 	

Section III. OPERATION UNDER USUAL CONDITIONS

PREPARATION FOR FIRING

Perform your Before Operation (B) PMCS.



FIRING TECHNIQUES

USING M576 MULTIPURPOSE ROUND:

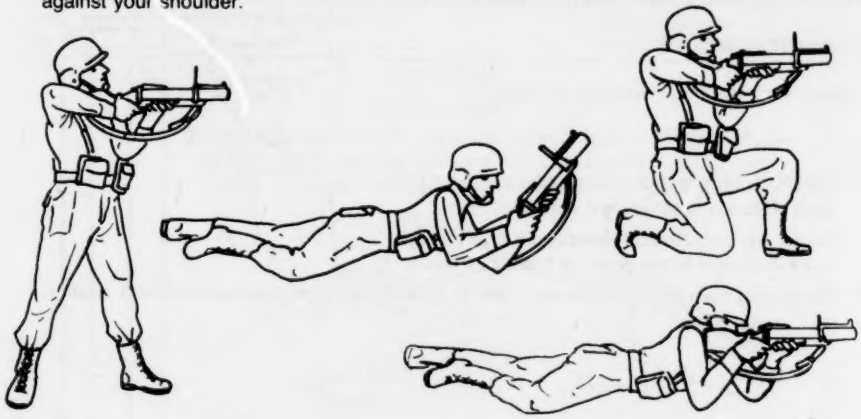
1 For short range targets, place leaf sight down. Estimate distance to target and aim head high.

2 For targets from 50 to 80 meters (165 to 264 ft), also place leaf sight in the down or battle position.

3 For targets from 80 to 365 meters (264 to 1205 ft), use rear sight in the raised position.

OPERATION UNDER USUAL CONDITIONS (CONT)

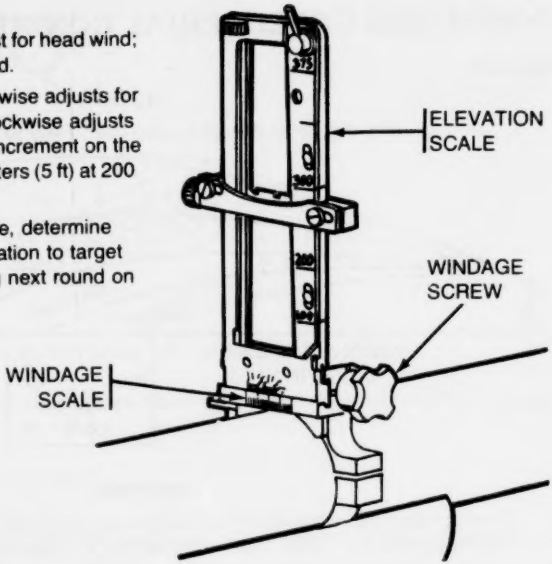
4 Launcher may be fired from standing, kneeling, or prone position. When firing long range from prone position, place stock of weapon on the ground. For all other positions, hold stock firmly against your shoulder.



5 Raise elevation scale to adjust for head wind; lower it to adjust for rear wind.

6 Turning windage screw clockwise adjusts for wind from the left; counterclockwise adjusts for wind from the right. One increment on the windage scale equals 1.5 meters (5 ft) at 200 meter range (660 ft).

7 If a first round hit is not made, determine where grenade landed in relation to target (sensing) and adjust to bring next round on target.

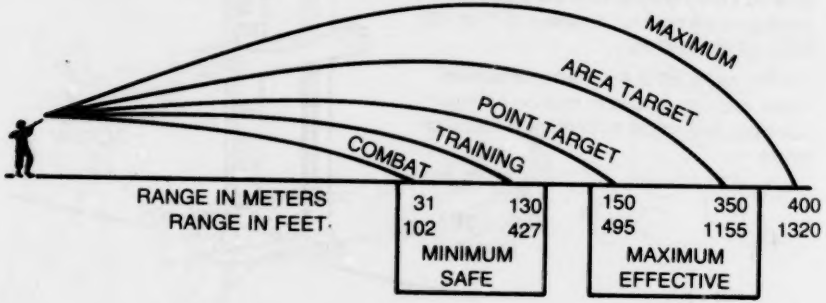


OPERATION UNDER USUAL CONDITIONS (CONT)

RANGE

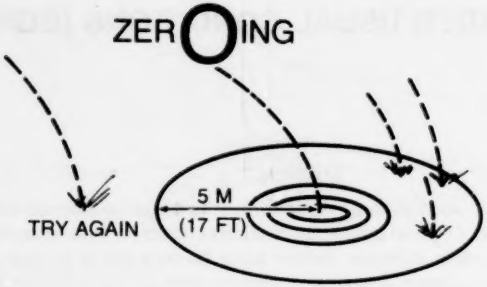
NOTE

Hitting the target depends upon your ability to determine range.



WARNING

Be in a protected position when you fire high explosive (HE) grenades at targets within 130 meters (427 ft). When training, do not fire at targets within 130 meters (427 ft). When in combat, do not fire at targets within 31 meters (102 ft).



WARNING

Do not zero in under 100 meters (330 ft).

Select a target at 200 meters (660 ft) and fire a round. If the round does not fall within 5 meters (17 ft) of target, zero the weapon as follows.

1 Adjust sight for more or less elevation.

2 Adjust for wind for each firing.

3 After each round is fired, adjust until three rounds in a row land within 5 meters (17 ft) of aiming point.

OPERATION UNDER USUAL CONDITIONS (CONT)

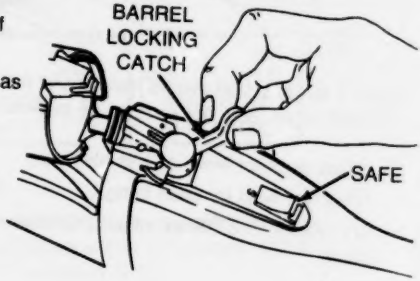
LOADING

WARNING

Do not carry weapon in open position. Weapon must be carried in a closed and locked position with safety on. To avoid accidental discharge, do not rest thumb on safety. Be sure trigger finger is clear of trigger. Before firing, be sure thumb is clear of barrel locking latch. Do not squeeze trigger and remove safety at the same time.

1 Point muzzle of launcher at an area clear of personnel.

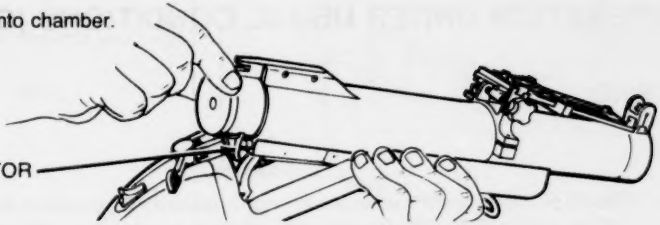
2 Move barrel locking latch as far to the right as possible.



NOTE

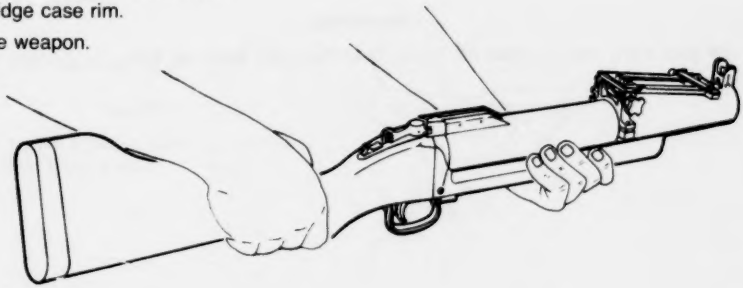
This action automatically positions safety to the S (safe) nonfiring position.

3 Insert projectile into chamber.



4 Make sure extractor contacts cartridge case rim.

5 Close weapon.



FIRING

WARNING

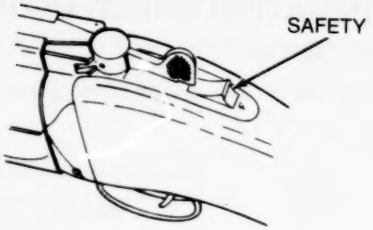
Be in a protected position when you fire high explosive (HE) grenades at targets within 130 meters (427 ft). When training, do not fire at targets within 130 meters (427 ft). When in combat, do not fire at targets within 31 meters (102 ft).

WARNING

Be sure there are no obstacles (sling, branches, etc) in line of fire.

1 Determine target distance and select range.

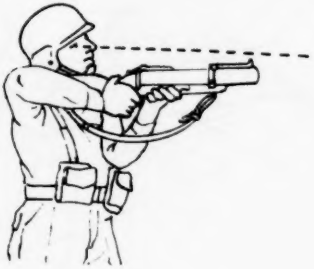
2 Move safety to F (fire).



3 Aim and squeeze trigger to fire.

NOTE

Practice breath control as you do when firing a rifle.



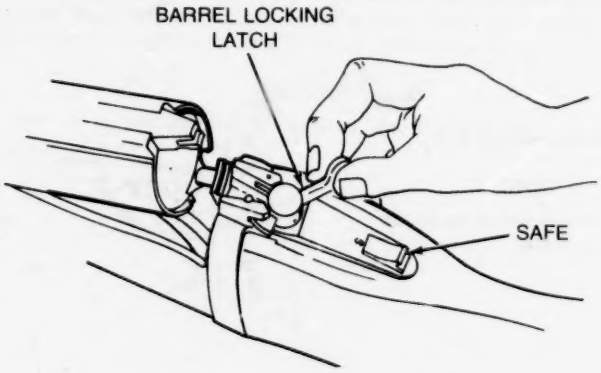
OPERATION UNDER USUAL CONDITIONS (CONT)

UNLOADING

1 Move barrel locking latch as far right as possible.

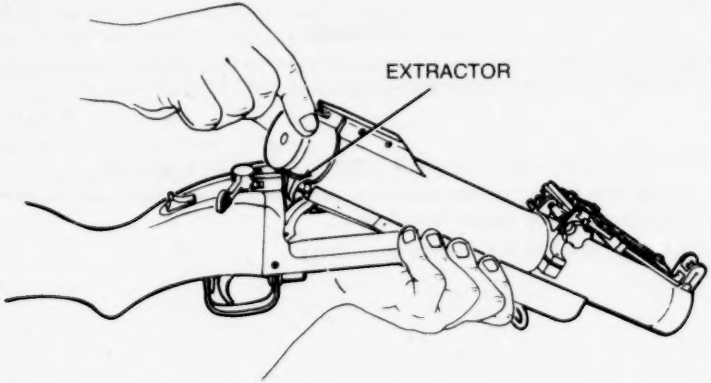
NOTE

This action automatically positions safety to S (safe).



2 Remove partially extracted cartridge case.

3 If cartridge case is not partially extracted, engage extractor tang and pull it rearward. Grasp cartridge case and remove.



OPERATION UNDER USUAL CONDITIONS (CONT)

HANGFIRE

Hangfire: A delay in the propellant charge igniting.

WARNING

Keep muzzle on target and clear all personnel from the area (at least 130 meters or 427 ft). Wait 30 seconds before removing round.

1 Unload the round and catch it, or unload close to ground for a short fall.

2 Store the round at a safe distance away from serviceable ammunition until it is determined whether the round or the weapon is defective.

3 A dented primer is a hangfire. Handle accordingly.

MISFIRE

Misfire: A failure to fire. Handle the same as a hangfire.

WARNING

Keep muzzle trained on target and clear all personnel from the area (at least 130 meters or 427 feet). Wait 30 seconds before removing round.

1 If the primer is not dented, the firing mechanism is faulty. A dented primer is a hangfire. Handle accordingly.

2 See your NCO or unit armorer.

3 When the mechanism is repaired, the round may be reloaded and fired.

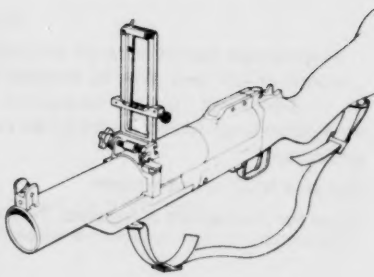
Section IV. OPERATION UNDER UNUSUAL CONDITIONS

HOT CLIMATES. Lube frequently because heat dissipates the oil rapidly.

DUSTY OR SANDY CONDITIONS. Inspect daily. Clean frequently. Wipe CLP from exposed surfaces. Keep sand out of parts. Cover weapon as much as possible.

BELOW FREEZING TEMPERATURES. Keep free of moisture. Use CLP (item 1, app D) lightly.

AFTER EXPOSURE TO WATER. Disassemble, clean, lube and assemble as soon as possible. Make sure it's dry before lubricating.



Section V. NUCLEAR, BIOLOGICAL AND CHEMICAL (NBC)

General procedures can be found in FM 3-87, FM 21-40, and TM 3-220.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. LUBRICATION INSTRUCTIONS

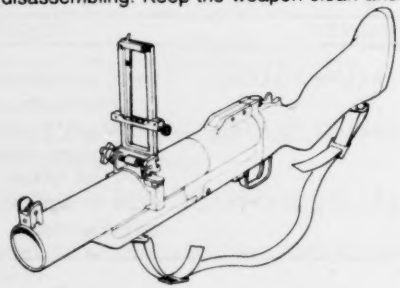
LUBRICATION

a. Perform required lubrication during maintenance procedures.

b. Periodic lubrication can be performed without disassembling. Keep the weapon clean and lubricated even when you don't use it for a while.

NOTE

Lube instructions are mandatory.



LUBE GUIDE

WEEKLY	
COLD	NORMAL

DAILY	
HUMID	HOT

Section II. TROUBLESHOOTING

INTRODUCTION

a. The table lists the common malfunctions you may find when you operate or maintain the M79 grenade launcher or its components. Perform the tests/inspections and corrective actions in the order listed.

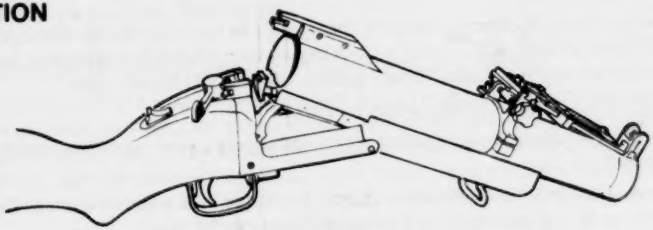
b. The troubleshooting table cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

TROUBLESHOOTING

PROBLEM	CHECK FOR	HOW TO FIX IT
FAILURE TO LOAD	Faulty ammunition	Reload (p 2-27).
	Chamber obstructions	Clean (p 3-9).
FAILURE TO FIRE	Safety with S exposed	Move safety to F (fire).
	Faulty ammunition	Reload (p 2-27).
	Firing pin retainer loose	Tighten firing pin retainer.
FAILURE TO EXTRACT	Stuck or ruptured cartridge case	Remove case from chamber with aid of extractor tang.

Section III. MAINTENANCE PROCEDURES.

INSPECTION



NOTE

Notify organizational maintenance personnel when a loss of range or loss of accuracy is noticed.

1 Inspect bore of barrel for pitting and erosion. Pits are allowed if sharpness of the lands is not affected materially. Inspect barrel locking lug for burrs and damage.

2 Inspect front and rear sights for broken or missing parts (see p 2-5). Make sure all parts work on the rear sight.

3 Check spring action of trigger guard detent to see if it is strong enough to lock and hold trigger guard (see p 2-2). Check all parts for damage.

MAINTENANCE PROCEDURES (CONT)

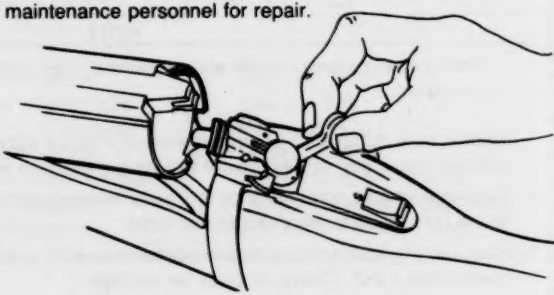
INSPECTION (CONT)

4 Operate barrel locking latch, moving it to the right for its full limit of travel. Make certain spring action of barrel locking latch is strong. Cock the weapon. During this operation, safety should move automatically to S (safe). Barrel locking latch should remain open.

5 Do the following to see if safety works properly.

a. Operate the safety. Be sure safety spring has enough pressure to keep safety in position selected.

b. Place safety to S (safe). Squeeze trigger. If hammer fails, weapon is unsafe and must be turned in to organizational maintenance personnel for repair.

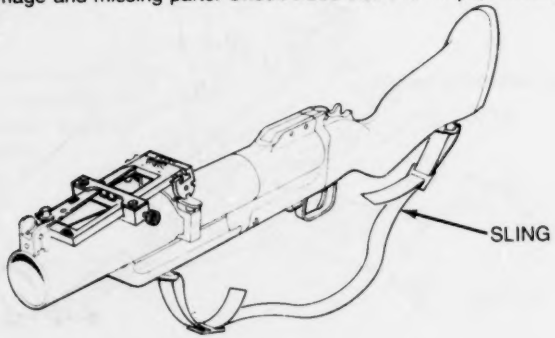


6 Check for chipped or blunt firing pin.

7 Check firing pin retainer for cracks, proper installation and pitting due to corrosion.

8 Sling swivels should operate smoothly. There should be no binding.

9 Check stock regularly for cracks, especially in the area of the receiver tang and swivel brackets. If cracks in fiberglass stocks exceed two inches in length, notify organizational maintenance personnel. Check rubber recoil pad for tears and damage. Check sling swivel assembly for damage and missing parts. Check wood stock for chips, cracks, or splits.



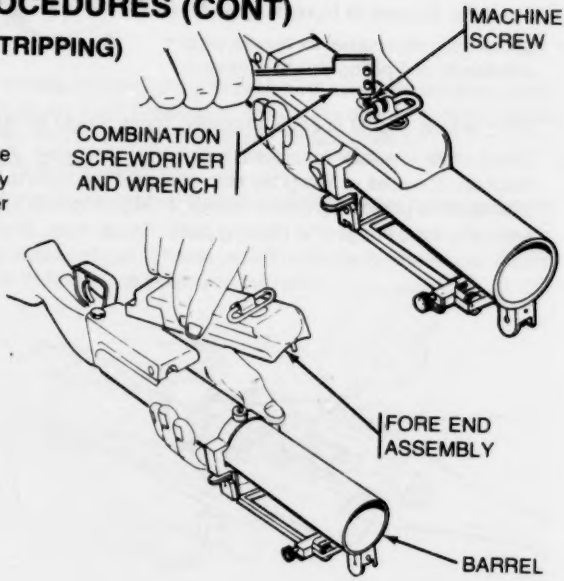
MAINTENANCE PROCEDURES (CONT)

DISASSEMBLY (FIELD STRIPPING)

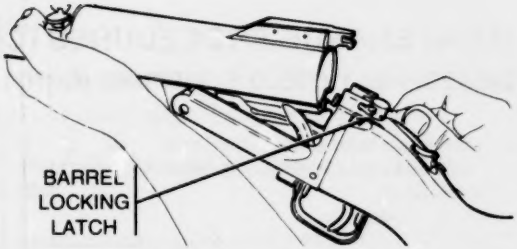
1 Remove sling.

2 Remove countersunk machine screw from fore end assembly using combination screwdriver and wrench.

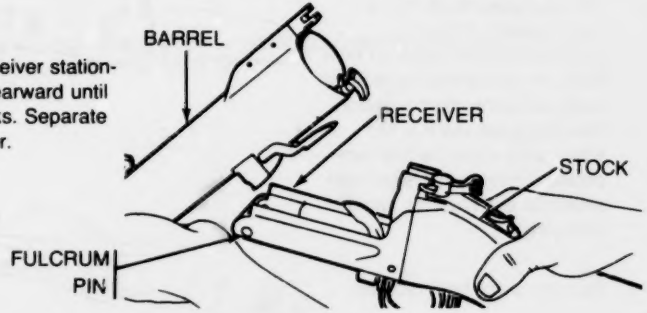
3 Pull fore end assembly from barrel.



4 Unlatch barrel locking latch and open weapon.



5 Hold stock and receiver stationary. Move barrel rearward until fulcrum pin unhooks. Separate barrel from receiver.



MAINTENANCE PROCEDURES (CONT)

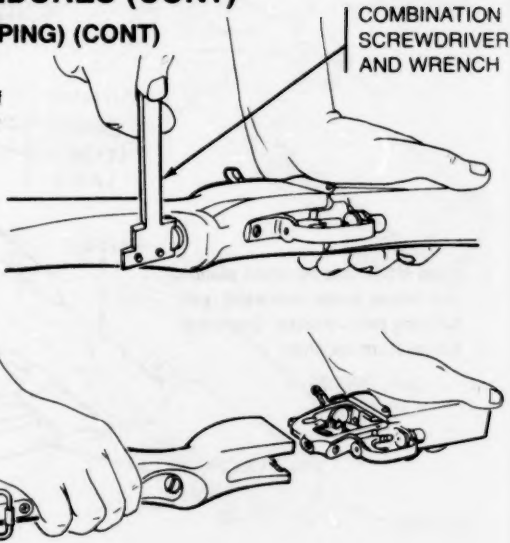
DISASSEMBLY (FIELD STRIPPING) (CONT)

6 Loosen panhead screw in bottom of stock using combination screwdriver and wrench.

NOTE

The fiberglass stock has a helicoil insert. Complete removal of panhead screw from stock is not required to remove stock assembly from receiver. The fiberglass stock is not affected by moisture and temperature; however, it is not indestructible and must be handled with care.

7 Remove stock from receiver.



CLEANING AND LUBRICATION

WARNING

Dry cleaning solvent is flammable and should not be used near an open flame.

Do not use dry cleaning solvent without gloves, as continuous use may cause cracks in skin, mild irritation, or inflammation.

1 Clean all exposed powder-fouled parts with cleaner, lubricant and preservative (CLP) (item 1, app D).

2 Wipe dry with wiping rag (item 5, app D) parts requiring lubrication and apply CLP (item 1, app D). Do not use cleaning solvent. Wipe dry.

CLEANING AND LUBRICATION (CONT)

CAUTION

Petroleum products deteriorate rubber. Do not use on rubber recoil pad. To clean grease or oil from all parts, use dry cleaning solvent (item 2, app D) and gloves (item 3, app D).

NOTE

When cleaning, take care not to lose component parts.

3 Clean bore of barrel with CLP (item 1, app D).

4 Clean and wash all metal parts with dry cleaning solvent (item 2, app D) and apply CLP (item 1, app D).

5 Wipe wood areas with wiping rag (item 5, app D) and apply light coat of raw linseed oil (item 4, app D).

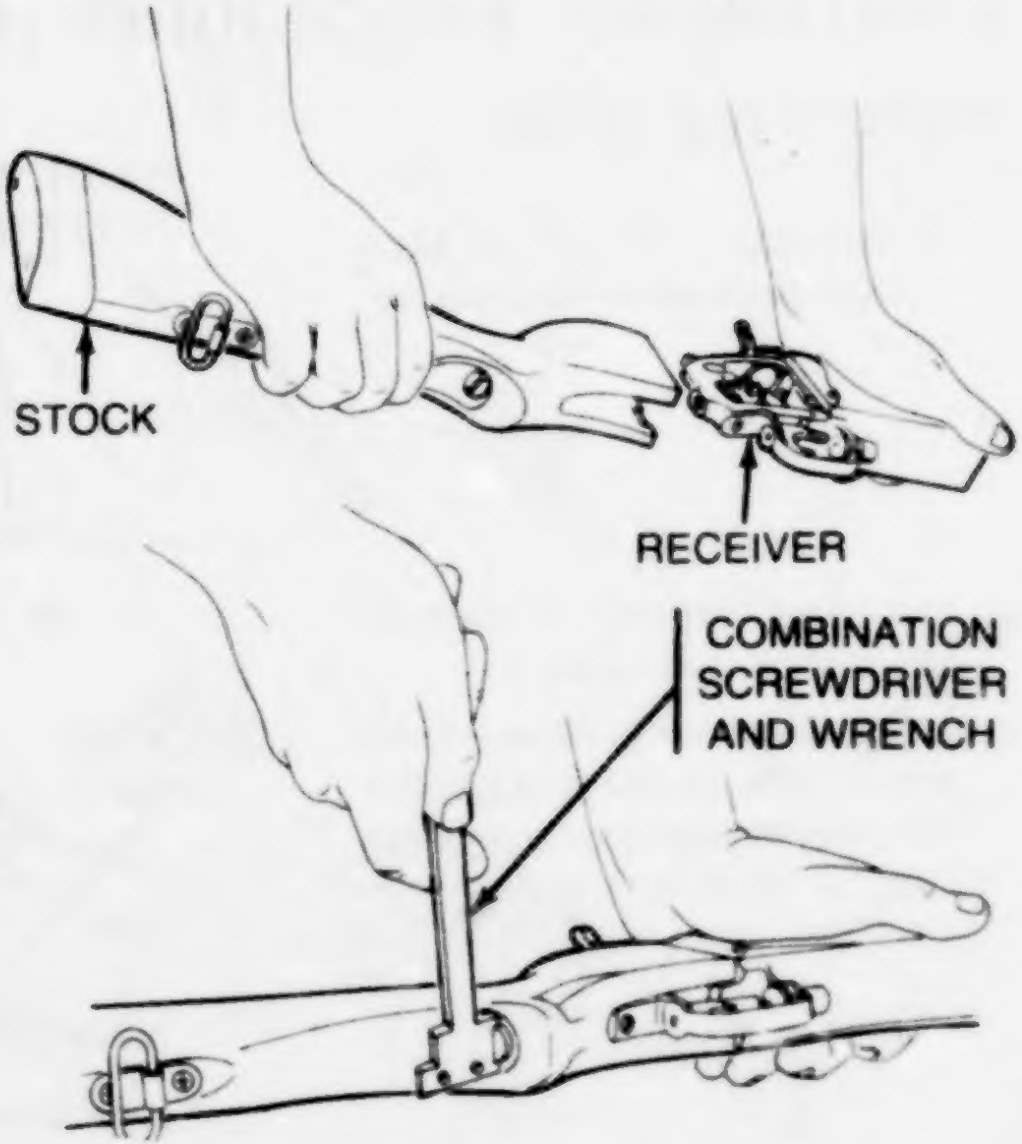
REASSEMBLY

1 Insert stock into rear of receiver.

CAUTION

Tighten panhead screw on fiberglass or wood stock until snug, then add an additional 1/8 turn. On a fiberglass stock, be careful screw is not so tight that it may be difficult to remove. Too great a torque can split a wood stock.

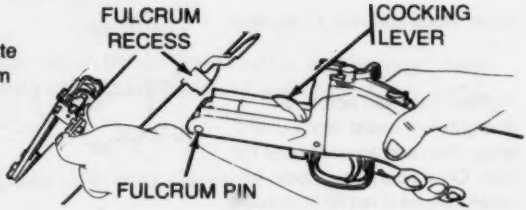
2 Tighten panhead screw in bottom of stock using combination screwdriver and wrench.



MAINTENANCE PROCEDURES (CONT)

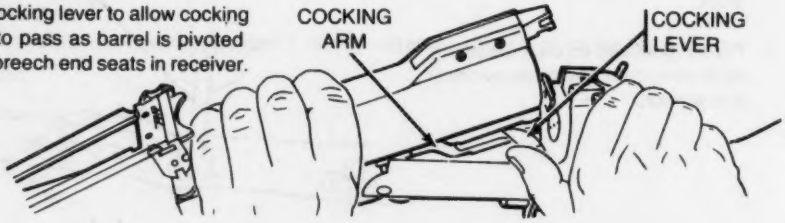
REASSEMBLY (CONT)

3 Position barrel in receiver. Mate fulcrum pin recess with fulcrum pin.



4 Pull barrel forward until fulcrum pin is hooked in barrel.

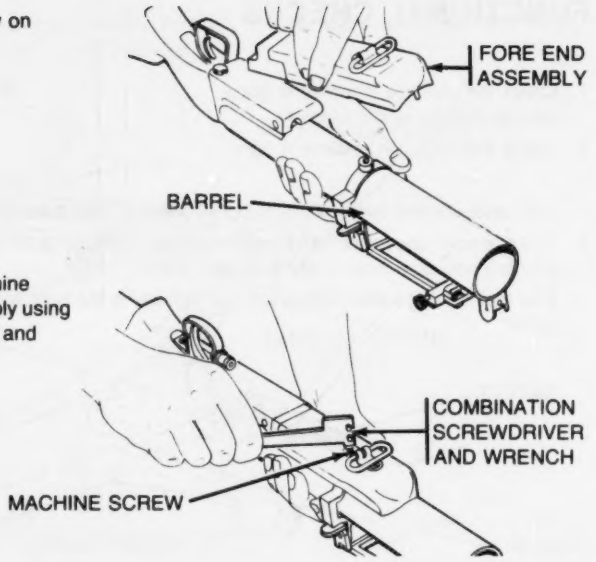
5 Lift cocking lever to allow cocking arm to pass as barrel is pivoted and breech end seats in receiver.



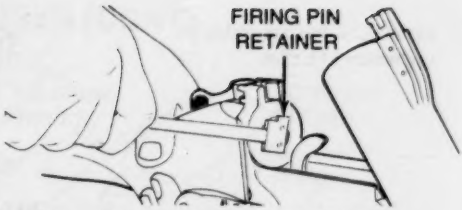
6 Install fore end assembly on underside of barrel.

7 Install countersunk machine screw in fore end assembly using combination screwdriver and wrench.

8 Install sling.



FUNCTIONAL CHECKS



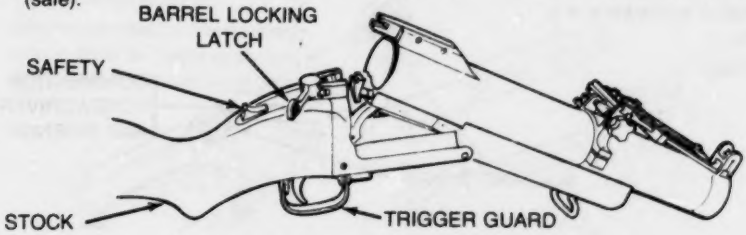
1 Check the grenade launcher to make sure everything works properly.

2 Check that firing pin retainer is tight.

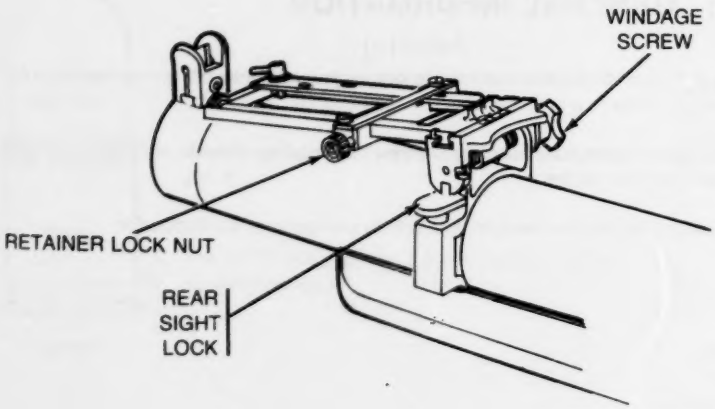
3 Test safety to see that it works in both positions. Weapon must not fire in S (safe).

4 Test that stock does not interfere with movement of trigger and trigger guard or stock does not interfere with operation of barrel locking latch.

5 Test that moving barrel locking latch all the way to the right automatically moves safety to S (safe).



6 Check that rear sight retainer lock nut works correctly. Test windage screw to see that it works correctly. Test rear sight lock in both positions.



CHAPTER 4
AMMUNITION

Section I. GENERAL INFORMATION

The only types of ammunition authorized for use in your grenade launcher are contained in this TM. If ammunition is shown, it is authorized.

The authorized types of ammunition are listed by their color coding, classes, arming ranges, and special information where required.

If ammunition fails to fire in your weapon, turn it in to unit armorer for disposition.

Section II. TYPES OF AMMUNITION

40-MM AMMUNITION TRAINING PRACTICE ROUNDS

M781

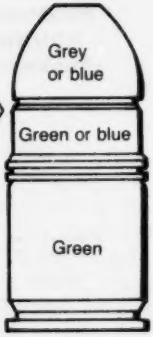
WARNING

The M407A1 practice round fuze arms between 14 to 27 meters (46 to 89 ft).

The danger radius of practice grenades is 20 meters (66 ft).

NOTE

The M781 practice round is completely inert and contains no fuze.



M407A1
M382
(HAS YELLOW MARKING ALSO)

TYPES OF AMMUNITION (CONT)

40-MM AMMUNITION MULTIPLE PURPOSE AND CHEMICAL ROUNDS

MULTI-PURPOSE ROUND (Buckshot)

CHEMICAL ROUND (Tactical CS)

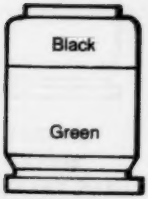
WARNING

The M651 arms between 10 to 30 meters (33 to 99 ft).

When firing M576 cartridge from the M79 launcher, be sure to aim at the foot of the target.

NOTE

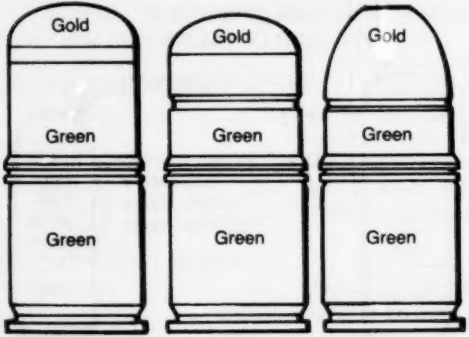
The multipurpose round contains no mechanical-type fuze.



M576

M651

40-MM AMMUNITION HIGH EXPLOSIVE (HE) SERVICE



JUMP UP FRAGMENTATION M397 M397A1

HEDP DUAL PURPOSE M433

HE M381 M406 M386 M441

WARNING

The danger radius of the HE Grenades is 130 meters (427 ft). The M386, M397, M397A1, M406, and M433 rounds arm within 14 to 27 meters (46 to 89 ft). The M381 and M441 rounds arm within 2.4 to 3 meters (8 to 10 ft).

TYPES OF AMMUNITION (CONT)

40-MM AMMUNITION PYROTECHNIC SIGNAL AND SPOTTING ROUNDS

Section III. CARE AND PRESERVATION

Aluminum cases are easily dented and may be hard to chamber and extract. Be careful! None of these rounds contains a mechanical-type fuze. Keep ammunition dry, clean, and free of grease, sand, mud, snow, and ice.

APPENDIX A
REFERENCES

A-1. SCOPE. This appendix lists all field and technical manuals and Army regulations referenced in this manual.

A-2. FIELD MANUALS.

FM 3-87	Nuclear, Biological and Chemical (NBC) Reconnaissance and Decontamination Operations (How To Fight)
FM 21-11	First Aid for Soldiers
FM 21-40	NBC (Nuclear, Biological and Chemical) Defense
FM 23-31	40-MM Grenade Launchers M203 and M79

A-3. TECHNICAL MANUALS.

TM 3-220	Chemical, Biological and Radiological (CBR) Decontamination

A-4. MISCELLANEOUS PUBLICATIONS.

DA PAM 738-750	The Army Maintenance Management System (TAMMS)

APPENDIX B
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Not applicable.

APPENDIX C
ADDITIONAL AUTHORIZATION LIST

Section I. INTRODUCTION

C-1. SCOPE. This appendix lists additional items you are authorized for the support of the M79 grenade launcher.

C-2. GENERAL. This list identifies items that do not have to accompany the M79 grenade launcher and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

C-3. EXPLANATION OF LISTING. National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support this equipment. The items are listed in alphabetical sequence by item name under the type document (i.e., CTA, MTOE, TDA, or JTA) which authorizes the items) to you.

Section II. ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION FSCM & PART NUMBER USABLE ON CODE	(3) U/M	(4) QTY AUTH
1010-00-474-5466	BRUSH, CLEANING BORE: (19204) 7790665	EA	1
1010-00-474-5462	CASE, SMALL ARMS: (19205) 7790630	EA	1
5120-00-736-8575	SCREWDRIVER AND WRENCH COMBINATION: (19204) 7791570	EA	1
1010-00-474-5465	THONG, BORE BRUSH: (19204) 7790631	EA	1

APPENDIX D
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

D-1. SCOPE. This appendix lists expendable/durable supplies and materials you will need to operate and maintain the grenade launcher. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

D-2. EXPLANATION OF COLUMNS.

a. *Column (1) - Item Number.* This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaner, lubricant and preservative, item 1, app D").

b. *Column (2) - Level.* This column identifies the lowest level of maintenance that requires the listed item.

C - Operator/Crew

c. *Column (3) - National Stock Number.* This is the National stock number assigned to the item; use it to request or requisition the item.

d. *Column (4) - Description.* Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. *Column (5) - Unit of Measure (U/M).* Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	C		CLEANER, LUBRICANT AND PRESERVATIVE (CLP) (27412)	
		9150-01-079-6124	CLP-4 oz bottle	OZ
		9150-01-102-1473	CLP-1/2 oz bottle	OZ
		9150-01-053-6688	CLP-1 gal bottle	GL
2	C		DRY CLEANING SOLVENT, (SD): (81348) P-D-680	
		6850-00-281-1985	GL	GL

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (CONT)

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
3	C	8415-00-823-7457	GLOVES, CHEMICAL SOLVENT RESISTANT (81348) ZZ-G-381	PR
4	C		LINSEED OIL, RAW: (1348) TT-L-215	
		8010-00-221-0611	1 gal can	GL
5	C		RAG, WIPING: cotton (58536) A-A-531	
		7920-00-205-1711	50 lb BE	EA

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By Order of the Secretary of the Army:

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